

REMARKS

Favorable reconsideration of this application in view of the previous amendment and following remarks is respectfully requested.

Claims 1-14 are pending, claims 1, 8 and 13 being independent. By this Amendment new claim 14 is added. Support for new claim 14 can be found at least in paragraphs 52-53 of the specification.

The Office Action rejects claims 1-13 under 35 U.S.C. §103(a) over U.S. Patent No. 5,025,481 to *Ohuchi* in view of U.S. Patent No. 5,805,738 to *Kaburagi et al.* This rejection is respectfully traversed.

Claim 1 recites, in combination with other claimed features, an image processing apparatus comprising a dot characteristic point extracting device that extracts dot characteristic points from M-level image data. A dot area identifying device determines whether a target pixel belongs to a dot area based on the results of the extraction carried out by the dot characteristic point extraction device. An N-level conversion unit converts the N-level image data into N-level image data. A parameter setting unit **sets the N-level conversion parameters** used by the N-level conversion unit **based on the results of the determination carried out by the dot area identifying device.**

The Office Action alleges that the discrimination single output part 14 of *Ohuchi* corresponds to the parameter setting unit of independent claim 1. As discussed in column 6, lines 28-32 of *Ohuchi* the region discrimination signal output part outputs a discrimination signal which indicates whether each picture element belongs to the dot region or the line region. The signal is used to determine what type of smoothing and dither process the image data will be subjected to. It is not

used to determine conversion parameters. There is no disclosure in *Ohuchi* of a parameter setting unit that sets the N-level conversion parameters used by an N-level conversion unit based on the results of the determination carried out by the dot area identifying device. The region discrimination signal output part merely outputs a discrimination signal.

The Office Action recognizes that *Ohuchi* fails to disclose an N-level conversion unit that converts the N-level image data into N-level image data and that sets the N-level conversion parameter used by the N-level conversion unit. *Kaburagi* does not overcome the deficiencies of *Ohuchi*.

Kaburagi discloses a gradation convention processing unit 204. The Office Action asserts that it "would have been obvious to a person of ordinary skill at the time of the invention to include N-level conversion in order to provide stable image information as taught by *Kaburagi*". That statement is not understood. It is not clear what will include the N-level conversion. Is the Examiner suggesting that the gradation conversion processing unit 204 of *Kaburagi* should be included in the *Ohuchi* circuit? If so, where would it be located? How would it be interconnected? And, how would N-level conversion lead to a more stable image formation?

The reference to *Kaburagi* that the Examiner relies upon merely states that in the *Kaburagi* second embodiment, since the texture patterns tend to be connected vertically, and the dots are connected vertically, there will be stable image formation. However, this statement in no way indicates that *adding* an N-level conversion unit to an image processing system will provide more stable image formation. Accordingly, the Examiner's reasons for combining the two references is based on a complete misunderstanding of the paragraph at column 8, lines 58 – 63, of *Kaburagi*.

Furthermore, even if there was some motivation to include the gradation conversion processing unit 204 of *Kaburagi* in the *Ohuchi* circuit, there is no teaching or suggestion that the gradation conversion processing unit 204 should be controlled by an output signal from a dot area identifying device. In *Kaburgai*, the gradation conversion processing unit 204 is not controlled by an output signal from a dot area identifying device.

Accordingly, Applicant submits that there is no teaching or suggestion to incorporate the gradation conversion processing unit 204 of *Kaburagi* in the *Ohuchi* circuit. And, even if there was, there is no suggestion to control it with an output of a dot area identifying device.

The Office Action does not allege that one of ordinary skill would have set the N-level conversion parameters used by the N-level conversion unit based on the results of the determination carried out by the dot area identifying device. The Office Action has merely established that *Ohuchi* outputs a discrimination signal which indicates whether each picture element belongs to a dot region or a line region. This is in no way connected to, or alleged to be connected to, the N-level conversion parameters.

The remaining dependent claims are allowable for at least the reasons discussed above as well as for the individual features they recite. For example, new claim 14 recites wherein the N-level conversion reference value is used for calculation of binarization error that is found by subtraction of the N-level conversion reference value and an error corrected M-level image data in the error diffusion method.

Claim 8 recites setting the N-level conversion parameters based on the dot area determination result and converting the M-level image data into N-level image data using the set N-level conversion parameters.

In the event that the Examiner maintains the rejections, the Examiner is respectfully requested to answer the three questions set forth above (where would it be located? how would it be interconnected? and, how would N-level conversion lead to a more stable image formation?) so that the rejection can be better understood.

In view of the foregoing remarks, the Examiner is respectfully urged to reconsider and withdraw the outstanding rejections.

In the event that there are any questions concerning this response, or the application in general, the Examiner is respectfully urged to telephone the undersigned attorney so that prosecution of the application may be expedited.

Respectfully submitted,

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